

REMARKS

I. Status of the Claims

Claims 1-18 are pending.

Claims 4, 7, 8, 9, 11, 13, 15 and 17 have been canceled without prejudice or disclaimer.

Claim 1 has been amended to specify that component (B) of the claimed article is aluminum hydroxide particles. Support for this amendment can be found throughout the original specification as published (US 2008/0097008), *e.g.*, at Example 1, paragraph [0143]; Example 8, [0165] and in original claims 4 and 5. Thus, no new matter has been added by this amendment.

Claim 3 has been amended to specify that resin (D) in the claimed article contains only an aromatic-aliphatic polyester. Support for this amendment can be found in the original specification as published at, *e.g.*, Example 8, paragraph [0165]. Claim 3 has further been amended to specify that the proportion in the resin composition occupied by the component (E) is 0.1% to **3%** in mass. Claim 3 as amended merely incorporates the subject matter of now-canceled claim 17. Thus, no new matter has been added by this amendments.

Claims 5, 10 and 14, which all ultimately depend from claim 1, have been amended to replace “metal hydroxide” with “aluminum hydroxide particles” as in claim 1. Thus, no new matter has been added by this amendment.

All amendments herein are made without prejudice or disclaimer as to all deleted subject matter. Applicants specifically reserve the right to pursue all deleted subject matter in one or more divisional and/or continuation application.

II. Double Patenting Rejections

Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-13 of U.S. patent 7,439,283. In response, Applicants submit herewith a

Terminal Disclaimer directed to the '283 patent. Applicants submit that the Terminal Disclaimer is proper and renders the above rejection moot.

Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-8 of co-pending application no. 11/575,823 ("the '823 application"). Applicants confirm that the '823 application has not issued as a patent. Accordingly, Applicants are not required to respond to the instant rejection at this time. Nevertheless, in the interest of furthering prosecution in the instant case, submitted herewith is a Terminal Disclaimer over the '823 application. Applicants submit that the Terminal Disclaimer is proper and renders the above rejection moot.

II. Claim Rejections under 35 U.S.C. §§ 102 and 103

1. Rejections involving Shimatzu

Claims 1 and 18 are rejected under 35 U.S.C. § 102(b) or, in the alternative, 35 U.S.C. § 103 over Shimatzu Corp. (JP 2002-105298) ("Shimatzu").

Claims 4 and 6 are rejected under 35 U.S.C. § 103 over Shimatzu.

Claims 2, 9 and 12 are rejected under 35 U.S.C. § 103 over Shimatzu in view of Allcock (Allcock et al., Contemporary Polymer Chemistry, 3rd Ed., (2003) ("Allcock").

Claims 3, 7, 13 and 16 are rejected under 35 U.S.C. § 103 over Shimatzu in view of Wnuk et al. (US 5,939,467) ("Wnuk").

Claims 5 and 8 are rejected under 35 U.S.C. § 103 over Shimatzu in view of Ida et al. (US 6,337,031) ("Ida").

Claims 10 and 11 are rejected under 35 U.S.C. § 103 over Shimatzu in view of Allcock and Ida.

Claims 14 and 15 are rejected under 35 U.S.C. § 103 over Shimatzu in view of Wnuk and Ida.

Claim 17 is rejected under 35 U.S.C. § 103 over Shimatzu in view of Allcock and Wnuk.

As a first matter, stated above, claims 4, 7, 8, 9, 11, 13, 15 and 17 have been canceled without prejudice or disclaimer – the subject matter of claims 4, 8, 9, 11, 13 and 15 has been folded into claim 1 as amended, and the subject matter of claim 17 has been folded into claim 3.

Regarding claims 1-3, 5, 6, 10, 12, 14, 16, and 18, Applicants respectfully traverse, on the basis that Shimatzu does not teach or suggest the aluminum hydroxide **particles**, and, further, that Shimatzu teaches away from the claimed invention. First, the Examiner contends that Shimatzu teaches aluminum hydroxide at paragraph [0012]. However, Shimatzu teaches only one specific kind of aluminum hydroxide, i.e., **plate-like aluminum hydroxide**. Claim 1 as amended, recites aluminum hydroxide particles. One of ordinary skill in the art at the relevant time (i.e., the filing date of the present application), would have understood that particles are not plates. In fact, Shimatzu also teaches “spherical and granular” substances (*see* paragraph [0012]) that one of ordinary skill in the art at the relevant time would have understood would be much more “particle-like” than “plate-like” substances, **but aluminum hydroxide is not one of these spherical and granular substances taught by Shimatzu. Indeed, metal hydroxide particles (*see* claim 18) are not included in the Shimatzu disclosure relating to spherical and granular substances, either.** Therefore, Shimatzu does not teach or suggest aluminum hydroxide particles or metal hydroxide particles. Moreover, Shimatzu in fact teaches away from the claimed aluminum hydroxide particles and metal hydroxide particles. In paragraph [0012] Shimatzu teaches that aspect ratios of filler components (the ratio of the longer dimension to the shorter dimension) should be over 5, because when the aspect ratio is shorter than 5, **“interactions between fillers becomes lesser, which is not preferable.”** One of ordinary skill in the art at the relevant time would have understood that the claimed aluminum hydroxide particles would have an aspect ratio of 1 if the particle had a uniform diameter (i.e., the same diameter in all directions), or an aspect ratio of a little over 1 if the particle was not uniform in size but instead had slight variance. That one of ordinary skill in the art at the

relevant time would understand this is especially true in light of claims 5, 10 and 14, which recite particles having **one dimension** (between 0.1 μm and 5 μm), and thus recite particles having an aspect ratio equal to or approaching 1. Either way, one of ordinary skill in the art at the relevant time would understand that the claimed aluminum hydroxide particles, and also the claimed metal hydroxide particles, would certainly not have an aspect ratio approaching 5, and Shimatzu teaches away from using filler components having an aspect ratio of less than 5. Therefore, Shimatzu does not teach or suggest the claimed aluminum hydroxide particles, and claim 1 is not obvious over Shimatzu. Furthermore, Shimatzu does not teach or suggest the claimed metal hydroxide particles, either, and claim 18 is therefore not obvious over Shimatzu. And, Allcock, Wnuk, and Ida cannot cure this deficiency of Shimatzu. Thus, claims 1 and 18 are not obvious over Shimatzu in view of Allcock, Wnuk, and Ida, in any combination.

Claims 2, 3, 5, 6, 10, 12, 14, and 16 ultimately depend from claim 1. A dependent claim includes all the limitations of the claim from which it depends (and further limits the claim). Thus, because Shimatzu does not anticipate or render obvious claim 1, alone or in view of any combination of Allcock, Wnuk, and Ida, it cannot anticipate or render obvious the claims that depend from claim 1, namely dependent claims 2, 3, 5, 6, 10, 12, 14, and 16.

Accordingly, for at least the reasons stated above, claims 1 (as amended) and 18, as well as dependent claims 2, 3, 5, 6, 10, 12, 14, and 16 are not anticipated by or obvious over Shimatzu in view of Allcock, Wnuk, and Ida, in any combination, and this rejection should be withdrawn.

Further regarding claims 3, 14, and 16, these claims are not obvious over Shimatzu in view of Allcock, Wnuk, and Ida, in any combination, for at least the following additional reason. As acknowledged by the Examiner in the current Office Action at pp. 14, paragraphs 45 and 46, Shimatzu does not teach or suggest an article comprising a resin composition containing lactic acid and aluminum hydroxide and further comprising a resin (D) containing **only** an aromatic-aliphatic polyester, and an ester compound (E), wherein the proportion in the resin composition occupied by the ester compound (E) is **0.1% to 3% in mass**. Shimatzu instead recites 5% - 25% (in mass) of a plasticizer, and teaches that when the amount of plasticizer is lower than this range, "temporal

stability becomes lower, which is not preferable.” (See Shimatzu at paragraph [0018]). Thus, Shimatzu clearly teaches away from using less than 5% of a plasticizer. However, the Examiner points to the statement in Shimatzu that the ‘5-50 weight parts [of the plasticizer] is **preferable**.” And, based on this, the Examiner concludes that Shimatzu “gives one motivation to raise ... and lower the amount of plasticizer.” (See Office Action at p. 17, paragraph 65). Applicants are confused by the Examiner’s statements and respectfully request the Examiner to explain how one of ordinary skill in the art at the relevant time who, upon becoming aware of the Shimatzu teaching that there are problems associated with using less than 5% by weight of plasticizer, would be motivated to do just that. Applicants cannot find any U.S. case law wherein one of ordinary skill in the art was motivated by a reference to **not follow its teachings**. In fact, in order to form a *prima facie* case of obviousness, a reference must teach or suggest the modification to the prior art article to reach the claimed article. The Examiner rationalizes that because Shimatzu does state that the plasticizing effect would be “**negligible**” and because the range recited in Shimatzu is a preferred range, the amount of plasticizer is a “result effective variable,” and as such is a matter of optimization through routine experimentation. Again, Applicants do not understand – a “result effective variable” is indeed one that can be determined through routine experimentation, but **Shimatzu has already performed the routine experiments and determined that there are problems associated with using less than 5% by weight of plasticizer, and therefore one should use more than 5% plasticizer by weight**. Therefore, one of ordinary skill in the art would not be motivated to perform the routine experimentation suggested by the Examiner. In fact, one of ordinary skill in the art would clearly be motivated to follow the teachings of Shimatzu and use more than 5% plasticizer in such articles as the instantly claimed composition. In summary, simply put, one of ordinary skill in the art would not review a reference that teaches “**don’t do this**” and be motivated to go ahead and do it – this is the entire crux of a “teach away”. Applicants were the first to realize that smaller amounts of an ester compound (E) were desirable in an article such as that claimed (because small amounts of ester (E) are helpful to flame retardation while maintaining a decrease in impact resistance (see instant specification as published, at paragraph [0039]), in spite of the prior art that teaches otherwise. Thus, as taught by the very reference that the Examiner is citing

against claim 3, i.e., Shimatzu, it is clearly not obvious to use less than 5% plasticizer in a resin composition. Accordingly, for these reasons, claim 3 as amended is not obvious over Shimatzu.

Allcock, Wnuk, and Ida cannot cure these deficiencies of Shimatzu. More specifically, Allcock and Ida are silent as to the use of aromatic-aliphatic polyesters in resins, and none of Allcock, Wnuk and Ida teach or suggest the incorporation of **0.1% to 3% (in mass)** of an ester compound (E) in the resin composition. Thus, claim 3 is not obvious over Shimatzu in view of Allcock, Wnuk, and Ida, in any combination.

Claims 14 and 16 depend from claim 3. A dependent claim includes all the limitations of the claim from which it depends (and further limits the claim). Thus, because Shimatzu does not anticipate or render obvious claim 3, alone or in view of any combination of Allcock, Wnuk, and Ida, it cannot anticipate or render obvious the claims that depend from claim 3, namely dependent claims 14 and 16.

Accordingly, for at least the reasons stated above regarding claim 1 and further in light of the reasons set forth above regarding claim 3 as amended, claims 3 (as amended), 14, and 16 are not obvious over Shimatzu in view of Allcock, Wnuk, and Ida, in any combination, and this rejection should be withdrawn.

III. Claim Rejections under 35 U.S.C. § 103(a) over Tanaka US 7,439,283 and Tanaka US 2007/0203287

Claims 1-18 are rejected as obvious over either Tanaka US 7,439,283 or Tanaka US 2007/0203287 (U.S. patent application 10/575,823) in view of Shimatzu, Wnuk and Ida. Once again, the Applicants note that claims 4, 7, 8, 9, 11, 13, 15 and 17 have been canceled without prejudice or disclaimer.

Regarding the rejections, the Examiner notes that Tanaka 7,439,283 and Tanaka US 2007/0203287 are commonly owned and also notes that the Tanaka references are available under 35 U.S.C. § 103(a) if the conflicting inventions were not commonly owned at the time the invention in this application was made. (See Office Action at p. 10, paragraphs 27, 28.). The Examiner

further notes that this rejection can be overcome if the Applicants can make a showing that Tanaka US 7,439,283, Tanaka US 2007/0203287 and the present application were commonly owned at the time the invention in this application was made. (*See id.*).

In addition, the Examiner states that Tanaka US 2007/0203287 qualifies as prior art under 35 U.S.C. § 102(f).

In response, Applicants first submit that Tanaka US 2007/0203287 is not properly cited as a reference against the present patent application, because Tanaka US 2007/0203287 is not prior art with respect to the present application under 35 U.S.C. § 102(f) or, for that matter, any other subsection of 35 U.S.C. § 102 or 103. Tanaka US 2007/0203287 was filed on May 16, 2007, almost one year after the filing date of the present application, and thus is not available as prior art against the present patent application. In support of this assertion, the Applicants provide herewith copies of the Patent Assignment Abstracts of Title for Tanaka US 2007/0203287, and the instant application as published, US 2008/0097008 (U.S. patent application 10/595,375), first confirming the later filing date of US 2008/0097008 relative to the present patent application, and also showing as of the May 16, 2007 filing date of the later-filed patent application, i.e., Tanaka US 2007/0203287, it and the present application were commonly owned. Therefore, the Applicants respectfully request that the rejection of claims 1-18 as obvious over Tanaka US 2007/0203287 (U.S. patent application 10/575,823) in view of Shimatzu, Wnuk and Ida be withdrawn.

With respect to the rejection of claims 1-18 are rejected as obvious over Tanaka US 7,439,283 in view of Shimatzu, Wnuk and Ida, the Applicants note that Tanaka US 7,439,283, and the present application were commonly owned at the time the invention in this application was made. In support of this assertion, the Applicants provide herewith copies of the Patent Assignment Abstracts of Title for U.S. patent 7,439,283, and the instant application as published, US 2008/0097008 (U.S. patent application 10/595,375), showing that as of the March 30, 2006 filing date of this application, Tanaka US 7,439,283 and the present application were commonly owned.

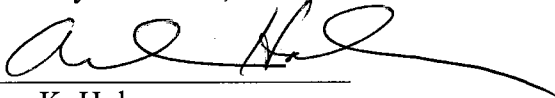
Accordingly, under 35 U.S.C. § 103(c), the rejections over Tanaka US 7,439,283 and Tanaka US 2007/0203287 should be withdrawn.

IV. Conclusion

This application is believed to be in condition for allowance, which is earnestly solicited. If the Examiner believes there are further issues that could be advance by an interview or entry of an Examiner's Amendment, the Examiner is invited to contact the undersigned attorney.

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Respectfully submitted,

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